

Name: _____

p1105: Factoring when $a = 1$ (v8)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5 . Focus on finding factor pairs of -24 . Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 - 14x + 49$

2. Factor $x^2 + 9x + 18$

3. Factor $x^2 - 2x - 63$

4. Factor $x^2 + 8x + 12$

5. Factor $x^2 + 14x + 48$

6. Factor $x^2 + 5x - 36$

7. Factor $x^2 - 6x - 7$

8. Factor $x^2 + x - 6$

9. Factor $x^2 + 2x - 24$

10. Factor $x^2 - 4x + 4$

11. Factor $x^2 + 15x + 54$

12. Factor $x^2 + 4x + 3$

13. Factor $x^2 + 3x - 54$

14. Factor $x^2 + x - 42$

15. Factor $x^2 + 3x - 18$